

Appl. No. 10/602,567  
Amdt. dated Nov. 19, 2004  
Reply to Office Action of September 9, 2004

### **REMARKS/ARGUMENTS**

This is a response to the FINAL Office Action of September 9, 2004. Claims 1 – 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over NEWLY CITED references of Edling et al in view of Harper. The applicants respectfully submit that the final action is premature since two new references were cited against the instant claims and the grounds of rejection are different from those used in the first office action. The applicants, having carefully reviewed the Office Action and the reasons for rejection of the claims, respectfully traverse.

Turning now to the cited reference of Edling et al, the patent shows a bottom-supported vessel, wherein the ballastible and deballastible mat 24 is adapted to be buried into the seabed. See, col. 2, lines 48-49. The mat is made buoyant; it floats independently from the platform, “floating therearound” (col. 3, lines 7 – 10). The mat has to be buried in the soil to avoid ice loading and in order to support the platform. In order to bury the mat in the seabed, the mat 24 is fully ballasted and the hull 28 is partially ballasted or a jetting system is used in addition to the vessel preloading. See, col. 3, lines 43 – 56. The hull must be ballasted to perform the embedment operation. See, col. 3, lines 35 – 43. The extensive ballasting and de-ballasting is one of the processes the instant invention aims to eliminate.

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Consequently, the intended provision of the passive structural support for the platform cannot be achieved without the use of the ballasting means. See, col. 3, lines 37– 43.

Harper discloses a **floating**, not bottom supported, submergible mat 30 having freeing holes to minimize resistance during lowering of the mat to the seabed. One of the embodiments shown in Fig. 12 discloses a ballastible and deballastible mat 93, which can be a large area plate, with or without freeing holes. Col. 5, lines 72 -73. One or more structures in the apparatus 90 of Harper must be ballasted in order to cause the mat to move vertically in the water. As disclosed in the Harper patent, col. 5, lines 69 - 75 through col. 6, lines 1-2, either the mat 93, or the columns 92 are ballasted and deballasted, or the pontoons have to be ballasted or deballasted. The preferred embodiment shown in Fig. 13 shows a ballasted mat 93. Col. 6, lines 3 – 7.

Therefore, neither Harper, nor Edling et al. disclose, teach or suggest provision of a mat structure that has “sufficient buoyancy to facilitate floating of the hull when the structure is in transit, while facilitating lowering of the mat to a seabed without assistance of a ballasting means,” as recited in Claims 1, 6 and 11 of the instant application. Regardless of what ballasting means are used in the cited references, whether in the mat, or columns, or pontoons, the mat structures of the cited references do not allow the mats

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to be lowered without the assistance of the ballasting means. Therefore, neither the primary, nor the secondary reference, nor a combination of the two would produce the structure as claimed in Claims 1-12 of the instant application. Failure of the cited prior art to disclose all features of the claimed invention results in an inescapable conclusion that the *prima facie* case of obviousness has not been established.

In contrast to the cited references, the mat of the instant invention has “sufficient weight and less than neutral buoyancy to lower itself to the seabed 16. When assisted by the legs 18, forcing the mat 14 downwardly, the mat 14 will move to the bottom and rest on the seabed 16, supporting the platform 12.” The mat is configured to weigh a few tons more than its buoyancy. Therefore, the mat sinks by its own weight when lowering into the water without the need for any additional ballast. After the mat is lowered to the seabed, the hull is elevated above the water. The hull weight makes the mat penetrate into the seabed. Once the mat is lowered, in certain water depths, additional hull weight (ballast) may be needed to add to the hull in order to achieve the required overturning safety factor/margins. However, the ballasting means are not required when the mat is lowered to the seabed.

As recited in Claims 2 and 9, the mat of the instant invention comprises **hollow members**. Compare with the plurality of bulkheads in Edling et al, plate-like mat 93, or

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mat 54 with freeing holes of Harper. For these reasons it is believed that Claims 2 and 9 are independently patentable.

As recited in Claim 6, the mat is lowered into the body of water when the legs are lowered, not when the ballasting means are used. Such step is different from the steps recited in the cited references. The applicants amended Claim 6 (the method claim) to further stress that the mat of the instant invention is embedded with the assistance of the legs' and mat's configuration. As disclosed in the application as filed, lowering of the legs, in cooperation with the specific pre-determined buoyancy of the mat facilitates lowering of the mat to the seabed, not the use of the ballasting means. The amendment does not introduce any new matter and was necessitated by Examiner's citation of new references. Having reviewed Examiner's statements, the applicants introduced the amendment in Claim 6 in an effort to bring Examiner's attention to the novel features of the instant invention. This amendment was not earlier presented since the applicants believed that the language of the claims made it sufficiently clear that the mat was lowered to the seabed without assistance of **any** ballasting means and that the step of lowering the mat was accomplished when the legs were lowered. Still, in an effort to better explain this feature to the Examiner, the applicants elected to introduce this amendment and make this feature of the invention even more clear.

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In view of the amendments and arguments presented above, it is believed that Claims 1 – 12 are in condition for allowance and issuance of an early Notice of Allowance is respectfully requested. Should the Examiner feel that a telephone conference would advance resolution of any issues, which might remain in the case, he is invited to call the undersigned at the telephone number listed below.

Respectfully submitted,

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On 19 of November 2004.

John C. Purvis, Applicant